

# General and Classified Index

COMBUSTION, Volume Twenty, July 1948 Through June 1949

## EDITORIALS—

|   | PAGE          |
|---|---------------|
| Activity in Natural Gas Distribution            | Sept. 1948 33 |
| Benefactor of Research, A.                      | Dec. 1948 33  |
| Boiler Age                                      | Oct. 1948 35  |
| Capacity Outlook Improves                       | Jan. 1949 27  |
| Capacity vs. Demand                             | Nov. 1948 33  |
| Coal per Kilowatt-Hour                          | Feb. 1949 33  |
| Central Station Operating Figures               | Nov. 1948 33  |
| Comparing Turbine Capabilities                  | Mar. 1949 27  |
| Conference to Feature Instrumentation           | Aug. 1948 29  |
| Conflicting Restrictions                        | Aug. 1948 29  |
| Control Station Statistics                      | June 1949 39  |
| Desirable Personal Characteristics              | May 1949 25   |
| Difficulties in Burning Some Imported Oils      | June 1949 39  |
| Financing Synthetic Fuel Plants                 | Mar. 1949 27  |
| First Year's Experience in Coal Nationalization | Sept. 1948 33 |
| Good Time for the Power Show, A.                | Sept. 1948 33 |
| Heavy Scrap Needed                              | Feb. 1949 33  |
| Inter-Professional Relationships                | Dec. 1948 33  |
| Lewis Marches On                                | July 1948 27  |
| Looking Back Sixty Years                        | Apr. 1949 27  |
| Marine Fouling                                  | May 1949 25   |
| Outdoor Construction on the Increase            | Apr. 1949 37  |
| Outlook for Power Equipment                     | July 1948 27  |
| Professional Registration                       | Jan. 1949 27  |
| Protection of Professional Employees            | Feb. 1949 33  |
| Pulverized Coal in Transportation               | Nov. 1948 33  |
| Reheat Problems Clarified                       | Dec. 1948 33  |
| Standardization                                 | June 1949 39  |
| Steam Quality                                   | Oct. 1948 35  |
| Student Guidance to Receive Greater Attention   | Aug. 1948 29  |
| To Better Small Plant Performance               | Mar. 1949 27  |
| Unit Boiler-Turbine Plants                      | Apr. 1949 37  |
| Will There Be a Coal Strike?                    | May 1949 25   |
| Within the Stacks                               | Oct. 1948 35  |
| Without Feedwater Treatment                     | July 1948 27  |

## ARTICLES—

|   | PAGE          |
|---|---------------|
| Additions To Utility Capacity   | Oct. 1948 43  |
| A.I.E.E. Winter Meeting   | Feb. 1949 52  |
| A.S.M.E. Annual Meeting Program Briefed   | Nov. 1948 54  |
| A.S.M.E. Spring Meeting at New London— <i>The English Station Extension; The Modern Mercury Unit; Marine Fouling Problems; Laboratory Tests of Marine Fouling; Temperature Control of Marine Fouling; Stoker Firing; Furnace Performance With Overfire Jets; Slag Deposits on Heating Surfaces of High-Pressure Boilers</i> | May 1949 45   |
| Appraisal of the Coal Industry. By J. E. Tobey  | Aug. 1948 35  |
| Automatic Control of Steam Plants, <i>A.S.M.E. Annual Meeting</i> . By Herman Weisburg, Paul Gravelle, V. F. Estcourt, R. F. Hanson, O. F. Campbell, C. H. Morrow, C. S. Robinson, B. C. Mallory, D. G. Reid, T. T. Frankenberg and C. S. Peace   | Dec. 1948 52  |
| Burning Anthracite in Power Plants. By R. L. Hallman  | July 1948 41  |
| Carryover Diagnosis, <i>Midwest Power Conference</i> . By J. A. Holmes  | May 1949 36   |
| Carryover Identification, <i>Midwest Power Conference</i> . By P. B. Place  | May 1949 36   |
| Causes of Flue Gas Deposits and Corrosion in Modern Boiler Plants. By W. F. Harlow  | Mar. 1949 35  |
| Chemical Cleaning of Heat-Exchange Equipment, <i>A.S.M.E. Annual Meeting</i> . By C. M. Loucks and C. H. Groom  | Dec. 1948 51  |
| Comparison of Gas and Steam Turbines, A. By Dr. Friedrich Münzinger   | Sept. 1948 39 |
| Control and Starting of Reheat Turbines. By C. A. Robertson   | Jan. 1949 37  |
| Cooling Tower Water Treatment Problems, <i>Midwest Power Conference</i> . By E. C. Hosbach  | May 1949 38   |
| Coordination of Power and Steam at S. D. Warren Co.   | Mar. 1949 28  |
| Corrosion of Boiler Generating Tubes. By R. L. Rees and E. A. Howes   | Feb. 1949 49  |
| Corrosion-Erosion of Feed Pumps and Valves, <i>A.S.M.E. Annual Meeting</i> . By J. M. Decker, H. A. Wagner and J. C. Marsh  | Dec. 1948 50  |

|  | PAGE          |
|--|---------------|
| Dedication of Coal-to-Oil Plants   | Apr. 1949 61  |
| Deposit Formations on Boiler Tubes. By R. S. Young and A. J. Hall  | Jan. 1949 41  |
| Developments in Resuperheating in Steam Power Plants, <i>A.S.M.E. Annual Meeting</i> . By E. E. Harris and A. O. White   | Dec. 1948 42  |
| Early Developments in Pulverized Coal Firing. By C. G. R. Humphreys. <i>Part I</i>   | Sept. 1948 34 |
| <i>Part II</i>   | Oct. 1948 44  |
| <i>Part III, The Transportation Field</i>  | Nov. 1948 40  |
| Economic Factors Governing the Selection of Feedwater Treatment. By Frank N. Kemmer  | Aug. 1948 30  |
| Economizers and Air Heaters in Marine Power Plants. By D. M. Schoenfeld and E. P. Worthen  | Apr. 1949 58  |
| Effect of Temperature on Metals, <i>A.S.M.E. Annual Meeting</i> . By H. Weisberg   | Dec. 1948 50  |
| Eleventh Midwest Power Conference, The— <i>Power Supply and Requirements; Power Supply and National Security; Power Supply to Chicago; Carryover Identification; Carryover Diagnosis; Steam Contamination Experience; Water Treatment for High-Pressure Plant; Feedwater Conditioning at Canadian Steel Plant; Refinery Boiler Feedwater Treatment; Treatment of Cooling Water; Cooling Tower Water Treatment Problems; Silica Carryover; Removal of Silica From Feedwater; Steam Formation by Motion Picture Studies; Evolution in Boiler Design; Steam Generator Developments; Industrial Power Plant Design; Small Plant Maintenance; Fly Ash From the Small Plant; Maintenance of Packaged Boilers; Post-War Turbine Design; Power Station Losses; Progress With Coal-Fired Turbine Locomotive; Present Status of Atomic Power</i> | May 1949 35   |
| English Station Extension, The, <i>A.S.M.E. Spring Meeting</i> . By R. L. Anthony, J. O. Mullen, C. A. Moisberry and E. H. Walton  | May 1949 45   |
| Evolution in Boiler Design, <i>Midwest Power Conference</i> . By E. M. Powell  | May 1949 39   |
| Experience With Burning Bagasse on Spreader-Type Stokers. By H. G. Meissner  | Sept. 1948 44 |
| Explosion Doors for Boiler Furnaces. By John Van Brunt   | Mar. 1949 44  |
| External Corrosion of Furnace-Wall Tubes, <i>A.S.M.E. Annual Meeting</i> . By R. C. Corey, H. A. Grabowski and B. J. Cross   | Dec. 1948 53  |
| Feedwater Conditioning at Canadian Steel Plant, <i>Midwest Power Conference</i> . By A. C. Elliott   | May 1949 37   |
| Fly Ash From the Small Plant, <i>Midwest Power Conference</i> . By Carl E. Miller  | May 1949 40   |
| Fouling and Cleaning of Heat-Exchange Equipment, <i>A.S.M.E. Annual Meeting</i> . By Leo F. Collins and W. L. Webb   | Dec. 1948 51  |
| Furnace Performance With Overfire Jets, <i>A.S.M.E. Spring Meeting</i> . By William S. Major   | May 1949 48   |
| General Fuel Situation, The. By Carl E. Miller   | Oct. 1948 51  |
| Graphitization of High-Temperature Welded Piping, <i>A.S.M.E. Annual Meeting</i> . By J. B. Abele and A. E. White  | Dec. 1948 49  |
| Heat Engines Discussed. By K. Baumann  | Jan. 1949 47  |
| High-Pressure Boilers With Reheaters, <i>A.S.M.E. Annual Meeting</i> . By W. H. Rowand, A. E. Raynor and F. X. Gilg  | Dec. 1948 47  |
| Industrial Power Plant Design, <i>Midwest Power Conference</i> . By Parker A. Moe  | May 1949 40   |
| Internal Treatment With Magnesium Chloride in Absence of Phosphate. By F. H. Long and W. A. Pollock  | Aug. 1948 47  |
| Joint Fuels Meeting Features Coal Reserves and Synthetic Oils  | Nov. 1948 59  |
| Kreisinger Laboratory Dedicated  | May 1949 49   |
| Laboratory Tests of Marine Fouling, <i>A.S.M.E. Spring Meeting</i> . By H. E. White  | May 1949 46   |
| Maintenance of Packaged Boilers, <i>Midwest Power Conference</i> . By F. W. Hainer   | May 1949 41   |
| Marine Fouling Problems, <i>A.S.M.E. Spring Meeting</i> . By I. A. Patten  | May 1949 46   |
| Midwest Power Conference Program   | Mar. 1949 47  |
| Model Test Analysis of Steam Piping. By Lale C. Andrews  | Apr. 1949 53  |
| Modern Mercury Unit Power Plant Design. By D. Douglass and H. N. Hackett   | June 1949 59  |
| Modern Reheat Boilers, <i>A.S.M.E. Annual Meeting</i> . By W. S. Patterson   | Dec. 1948 46  |
| More Power for Greater Alkali Production. By Neil J. Braski  | Oct. 1948 36  |
| New O. H. Hutchings Station, The. By R. D. Gillespie   | Jan. 1949 28  |
| New 160,000-Kw White River Generating Station of Indianapolis Power & Light Co. By A. A. Benson  | May 1949 26   |

# General and Classified Index

COMBUSTION, Volume Twenty, July 1948 Through June 1949

## EDITORIALS—

|   | PAGE          |
|---|---------------|
| Activity in Natural Gas Distribution            | Sept. 1948 33 |
| Benefactor of Research, A.                      | Dec. 1948 33  |
| Boiler Age                                      | Oct. 1948 35  |
| Capacity Outlook Improves                       | Jan. 1949 27  |
| Capacity vs. Demand                             | Nov. 1948 33  |
| Coal per Kilowatt-Hour                          | Feb. 1949 33  |
| Central Station Operating Figures               | Nov. 1948 33  |
| Comparing Turbine Capabilities                  | Mar. 1949 27  |
| Conference to Feature Instrumentation           | Aug. 1948 29  |
| Conflicting Restrictions                        | Aug. 1948 29  |
| Control Station Statistics                      | June 1949 39  |
| Desirable Personal Characteristics              | May 1949 25   |
| Difficulties in Burning Some Imported Oils      | June 1949 39  |
| Financing Synthetic Fuel Plants                 | Mar. 1949 27  |
| First Year's Experience in Coal Nationalization | Sept. 1948 33 |
| Good Time for the Power Show, A.                | Sept. 1948 33 |
| Heavy Scrap Needed                              | Feb. 1949 33  |
| Inter-Professional Relationships                | Dec. 1948 33  |
| Lewis Marches On                                | July 1948 27  |
| Looking Back Sixty Years                        | Apr. 1949 27  |
| Marine Fouling                                  | May 1949 25   |
| Outdoor Construction on the Increase            | Apr. 1949 37  |
| Outlook for Power Equipment                     | July 1948 27  |
| Professional Registration                       | Jan. 1949 27  |
| Protection of Professional Employees            | Feb. 1949 33  |
| Pulverized Coal in Transportation               | Nov. 1948 33  |
| Reheat Problems Clarified                       | Dec. 1948 33  |
| Standardization                                 | June 1949 39  |
| Steam Quality                                   | Oct. 1948 35  |
| Student Guidance to Receive Greater Attention   | Aug. 1948 29  |
| To Better Small Plant Performance               | Mar. 1949 27  |
| Unit Boiler-Turbine Plants                      | Apr. 1949 37  |
| Will There Be a Coal Strike?                    | May 1949 25   |
| Within the Stacks                               | Oct. 1948 35  |
| Without Feedwater Treatment                     | July 1948 27  |

## ARTICLES—

|   | PAGE          |
|---|---------------|
| Additions To Utility Capacity   | Oct. 1948 43  |
| A.I.E.E. Winter Meeting   | Feb. 1949 52  |
| A.S.M.E. Annual Meeting Program Briefed   | Nov. 1948 54  |
| A.S.M.E. Spring Meeting at New London— <i>The English Station Extension; The Modern Mercury Unit; Marine Fouling Problems; Laboratory Tests of Marine Fouling; Temperature Control of Marine Fouling; Stoker Firing; Furnace Performance With Overfire Jets; Slag Deposits on Heating Surfaces of High-Pressure Boilers</i> | May 1949 45   |
| Appraisal of the Coal Industry. By J. E. Tobey  | Aug. 1948 35  |
| Automatic Control of Steam Plants, <i>A.S.M.E. Annual Meeting</i> . By Herman Weisburg, Paul Gravelle, V. F. Estcourt, R. F. Hanson, O. F. Campbell, C. H. Morrow, C. S. Robinson, B. C. Mallory, D. G. Reid, T. T. Frankenberg and C. S. Peace   | Dec. 1948 52  |
| Burning Anthracite in Power Plants. By R. L. Hallman  | July 1948 41  |
| Carryover Diagnosis, <i>Midwest Power Conference</i> . By J. A. Holmes  | May 1949 36   |
| Carryover Identification, <i>Midwest Power Conference</i> . By P. B. Place  | May 1949 36   |
| Causes of Flue Gas Deposits and Corrosion in Modern Boiler Plants. By W. F. Harlow  | Mar. 1949 35  |
| Chemical Cleaning of Heat-Exchange Equipment, <i>A.S.M.E. Annual Meeting</i> . By C. M. Loucks and C. H. Groom  | Dec. 1948 51  |
| Comparison of Gas and Steam Turbines, A. By Dr. Friedrich Münzinger   | Sept. 1948 39 |
| Control and Starting of Reheat Turbines. By C. A. Robertson   | Jan. 1949 37  |
| Cooling Tower Water Treatment Problems, <i>Midwest Power Conference</i> . By E. C. Hosbach  | May 1949 38   |
| Coordination of Power and Steam at S. D. Warren Co.   | Mar. 1949 28  |
| Corrosion of Boiler Generating Tubes. By R. L. Rees and E. A. Howes   | Feb. 1949 49  |
| Corrosion-Erosion of Feed Pumps and Valves, <i>A.S.M.E. Annual Meeting</i> . By J. M. Decker, H. A. Wagner and J. C. Marsh  | Dec. 1948 50  |

|  | PAGE          |
|--|---------------|
| Dedication of Coal-to-Oil Plants   | Apr. 1949 61  |
| Deposit Formations on Boiler Tubes. By R. S. Young and A. J. Hall  | Jan. 1949 41  |
| Developments in Resuperheating in Steam Power Plants, <i>A.S.M.E. Annual Meeting</i> . By E. E. Harris and A. O. White   | Dec. 1948 42  |
| Early Developments in Pulverized Coal Firing. By C. G. R. Humphreys. <i>Part I</i>   | Sept. 1948 34 |
| <i>Part II</i>   | Oct. 1948 44  |
| <i>Part III, The Transportation Field</i>  | Nov. 1948 40  |
| Economic Factors Governing the Selection of Feedwater Treatment. By Frank N. Kemmer  | Aug. 1948 30  |
| Economizers and Air Heaters in Marine Power Plants. By D. M. Schoenfeld and E. P. Worthen  | Apr. 1949 58  |
| Effect of Temperature on Metals, <i>A.S.M.E. Annual Meeting</i> . By H. Weisberg   | Dec. 1948 50  |
| Eleventh Midwest Power Conference, The— <i>Power Supply and Requirements; Power Supply and National Security; Power Supply to Chicago; Carryover Identification; Carryover Diagnosis; Steam Contamination Experience; Water Treatment for High-Pressure Plant; Feedwater Conditioning at Canadian Steel Plant; Refinery Boiler Feedwater Treatment; Treatment of Cooling Water; Cooling Tower Water Treatment Problems; Silica Carryover; Removal of Silica From Feedwater; Steam Formation by Motion Picture Studies; Evolution in Boiler Design; Steam Generator Developments; Industrial Power Plant Design; Small Plant Maintenance; Fly Ash From the Small Plant; Maintenance of Packaged Boilers; Post-War Turbine Design; Power Station Losses; Progress With Coal-Fired Turbine Locomotive; Present Status of Atomic Power</i> | May 1949 35   |
| English Station Extension, The, <i>A.S.M.E. Spring Meeting</i> . By R. L. Anthony, J. O. Mullen, C. A. Moisberry and E. H. Walton  | May 1949 45   |
| Evolution in Boiler Design, <i>Midwest Power Conference</i> . By E. M. Powell  | May 1949 39   |
| Experience With Burning Bagasse on Spreader-Type Stokers. By H. G. Meissner  | Sept. 1948 44 |
| Explosion Doors for Boiler Furnaces. By John Van Brunt   | Mar. 1949 44  |
| External Corrosion of Furnace-Wall Tubes, <i>A.S.M.E. Annual Meeting</i> . By R. C. Corey, H. A. Grabowski and B. J. Cross   | Dec. 1948 53  |
| Feedwater Conditioning at Canadian Steel Plant, <i>Midwest Power Conference</i> . By A. C. Elliott   | May 1949 37   |
| Fly Ash From the Small Plant, <i>Midwest Power Conference</i> . By Carl E. Miller  | May 1949 40   |
| Fouling and Cleaning of Heat-Exchange Equipment, <i>A.S.M.E. Annual Meeting</i> . By Leo F. Collins and W. L. Webb   | Dec. 1948 51  |
| Furnace Performance With Overfire Jets, <i>A.S.M.E. Spring Meeting</i> . By William S. Major   | May 1949 48   |
| General Fuel Situation, The. By Carl E. Miller   | Oct. 1948 51  |
| Graphitization of High-Temperature Welded Piping, <i>A.S.M.E. Annual Meeting</i> . By J. B. Abele and A. E. White  | Dec. 1948 49  |
| Heat Engines Discussed. By K. Baumann  | Jan. 1949 47  |
| High-Pressure Boilers With Reheaters, <i>A.S.M.E. Annual Meeting</i> . By W. H. Rowand, A. E. Raynor and F. X. Gilg  | Dec. 1948 47  |
| Industrial Power Plant Design, <i>Midwest Power Conference</i> . By Parker A. Moe  | May 1949 40   |
| Internal Treatment With Magnesium Chloride in Absence of Phosphate. By F. H. Long and W. A. Pollock  | Aug. 1948 47  |
| Joint Fuels Meeting Features Coal Reserves and Synthetic Oils  | Nov. 1948 59  |
| Kreisinger Laboratory Dedicated  | May 1949 49   |
| Laboratory Tests of Marine Fouling, <i>A.S.M.E. Spring Meeting</i> . By H. E. White  | May 1949 46   |
| Maintenance of Packaged Boilers, <i>Midwest Power Conference</i> . By F. W. Hainer   | May 1949 41   |
| Marine Fouling Problems, <i>A.S.M.E. Spring Meeting</i> . By I. A. Patten  | May 1949 46   |
| Midwest Power Conference Program   | Mar. 1949 47  |
| Model Test Analysis of Steam Piping. By Lale C. Andrews  | Apr. 1949 53  |
| Modern Mercury Unit Power Plant Design. By D. Douglass and H. N. Hackett   | June 1949 59  |
| Modern Reheat Boilers, <i>A.S.M.E. Annual Meeting</i> . By W. S. Patterson   | Dec. 1948 46  |
| More Power for Greater Alkali Production. By Neil J. Braski  | Oct. 1948 36  |
| New O. H. Hutchings Station, The. By R. D. Gillespie   | Jan. 1949 28  |
| New 160,000-Kw White River Generating Station of Indianapolis Power & Light Co. By A. A. Benson  | May 1949 26   |



|   |            |    |
|---|------------|----|
| New Steam Cycle Proposed. By J. F. Field.   | Aug. 1948  | 40 |
| Operating Experience With High Steam Pressure. By W. N. C. Clinch.  | Nov. 1948  | 34 |
| Perkins on High-Pressure Steam. By C. G. R. Humphreys.  | Apr. 1949  | 48 |
| Port Jefferson Power Station of the Long Island Lighting Company. By W. J. Burns.   | Feb. 1949  | 34 |
| Port Washington 1948 Performance.   | Jan. 1949  | 45 |
| Post-War Turbine Design, <i>Midwest Power Conference</i> . By C. W. Elston.   | May 1949   | 41 |
| Power and Steam Facilities of New Texas Alkali Plant.   | Dec. 1948  | 57 |
| Power in New England.   | Jan. 1949  | 49 |
| Power Station Layouts.  | Sept. 1948 | 51 |
| Power Station Losses, <i>Midwest Power Conference</i> . By C. Birnie, Jr., and E. F. Obert.   | May 1949   | 41 |
| Power Supply and Requirements, <i>Midwest Power Conference</i> . By E. R. de Luccia.  | May 1949   | 35 |
| Power Supply and National Security, <i>Midwest Power Conference</i> . By Edward Falck.  | May 1949   | 35 |
| Power Supply to Chicago, <i>Midwest Power Conference</i> . By T. G. Le Clair.   | May 1949   | 36 |
| Present Status of Atomic Power. By Dr. Norman Hilberry.   | June 1949  | 47 |
| Prevention of Turbine-Blade Deposits. By George C. Daniels.   | July 1948  | 33 |
| Progress With the Coal-Fired Turbine Locomotive, <i>Midwest Power Conference</i> . By C. K. Steins.   | May 1949   | 42 |
| Quick Starts on Large Turbines and Boilers. By J. C. Falkner, D. W. Napier and C. W. Kellstedt.   | June 1949  | 64 |
| Refinery Boiler Feedwater Treatment, <i>Midwest Power Conference</i> . By Glenn Hull.   | May 1949   | 37 |
| Reheating in Steam Turbines, <i>A.S.M.E. Annual Meeting</i> . By Robert L. Reynolds and Homer R. Reese.   | Dec. 1948  | 43 |
| Removal of Silica From Feedwater, <i>Midwest Power Conference</i> . By J. D. Yoder.   | May 1949   | 39 |
| Russell Station Incorporates Advances in Power Plant Design. By I. G. McChesney.  | Dec. 1948  | 34 |
| Selection of Motors for Steam Station Auxiliaries. By G. L. Oscarson.   | Feb. 1949  | 43 |
| Silica Carryover, <i>Midwest Power Conference</i> . By F. G. Straub.  | May 1949   | 38 |
| Slag Deposits on Heating Surfaces of High-Pressure Boilers, <i>A.S.M.E. Spring Meeting</i> . By E. F. Walsh.  | May 1949   | 47 |
| Slagging-Bottom Furnaces Abroad. By K. Heinrich.  | May 1949   | 43 |
| Small Plant Maintenance, <i>Midwest Power Conference</i> . By Leland J. Mamer.  | May 1949   | 40 |
| Smoke Abatement's Wider Horizons. By J. H. Carter.  | July 1948  | 43 |
| Some Recent Court Decisions Affecting Owners and Operators of Steam Plants. By Leo T. Parker.   | Sept. 1948 | 47 |
| Steam and Power for Conduit and Sewer Pipe Manufacture. By B. G. Le Mieux.  | June 1949  | 51 |
| Steam Contamination Experience, <i>Midwest Power Conference</i> . By W. L. Webb.  | May 1949   | 37 |
| Steam Formation by Motion Picture Studies, <i>Midwest Power Conference</i> . By L. O. Gunderson and C. M. Bodach.   | May 1949   | 39 |
| Steam Generating Equipment for Resuperheating Cycles, <i>A.S.M.E. Annual Meeting</i> . By Martin Frisch.  | Dec. 1948  | 48 |
| Sulfur, Dew Point and Boiler Availability. By Stephen Juhász.   | June 1949  | 55 |
| Steam Generator Development to Obtain High Availability. By W. J. Vogel.  | Oct. 1948  | 57 |
| Steam Generator Developments, <i>Midwest Power Conference</i> . By Frank X. Gilg.   | May 1949   | 40 |
| Steam Peaks in Industrial Plants. By Dr. E. G. Ritchie.   | Mar. 1949  | 41 |
| Steam Reheating Highlights <i>A.S.M.E. Annual Meeting—Reheat Turbines; Reheat Boilers; Graphitization of High-Temperature Welded Piping; Corrosion-Erosion of Feed Pumps and Valves; External Corrosion of Furnace Wall Tubes; Chemical Cleaning of Heat-Exchange Equipment; Fouling and Cleaning of Heat-Exchange Equipment; Synthetic Liquid Fuel Research; Effect of Temperature on Metals; Utility-Industry Power Cooperation; Automatic Control of Steam Plants; Test of a 4800-Hp Gas Turbine</i> . | Dec. 1948  | 41 |
| Steam Turbines for the Resuperheat Cycle, <i>A.S.M.E. Annual Meeting</i> . By E. E. Parker.   | Dec. 1948  | 41 |
| Stoker Firing, <i>A.S.M.E. Spring Meeting</i> . By J. S. Bennett and F. C. Messaros.  | May 1949   | 48 |
| Survey Shows Power Situation.   | Jan. 1949  | 35 |
| Synthetic Fuels. By Frank A. Howard.  | Nov. 1948  | 46 |
| Synthetic Fuel Oil Costs.   | May 1949   | 50 |
| Synthetic Liquid Fuels, <i>A.S.M.E. Annual Meeting</i> . By W. C. Schroeder.  | Dec. 1948  | 53 |
| Temperature Control of Marine Fouling, <i>A.S.M.E. Spring Meeting</i> . By W. L. Chadwick, F. S. Clark and Dr. D. L. Fox.   | May 1949   | 47 |
| Test Methods for Checking Water Level in Boiler Drums. By P. B. Place.  | July 1948  | 37 |
| Test of a 4800-Hp Gas Turbine, <i>A.S.M.E. Annual Meeting</i> . By Alan Howard and B. O. Buckland.  | Dec. 1948  | 54 |
| Treatment of Cooling Water, <i>Midwest Power Conference</i> . By L. Drew Betz and John J. Maguire.  | May 1949   | 38 |
| Utility-Industry Power Cooperation, <i>A.S.M.E. Annual Meeting</i> . By Joseph Pope, K. M. Irwin and V. F. Estcourt.  | Dec. 1948  | 52 |

|  |           |    |
|--|-----------|----|
| Water Conference Features Precision Control and Debates Deaeration.                            | Nov. 1948 | 51 |
| Waterside No. 1 Completes Its Topping Program, Part I—Steam Generation. By R. T. Roberts.      | Apr. 1949 | 38 |
| Part II—Turbines and Auxiliaries. By H. Knecht.  | June 1949 | 40 |
| Water Treatment for High-Pressure Plant, <i>Midwest Power Conference</i> . By Louis Wirth, Jr. | May 1949  | 37 |
| What's New in Boiler Feed Pumps? By J. L. Dawson.  | July 1948 | 28 |

## AUTHORS—

|   |           |    |
|---|-----------|----|
| Abele, J. B., and A. E. White— <i>Graphitization of High-Temperature Welded Piping</i> , <i>A.S.M.E. Annual Meeting</i> .               | Dec. 1948 | 49 |
| Andrews, Lale C.— <i>Model Test Analysis of Steam Piping</i> .  | Apr. 1949 | 53 |
| Anthony, R. L., J. O. Mullen, C. A. Molsberry and E. H. Walton— <i>The English Station Extension</i> , <i>A.S.M.E. Spring Meeting</i> . | May 1949  | 45 |
| Baumann, K.— <i>Heat Engineering Discussed</i> .  | Jan. 1949 | 47 |
| Bennett, J. S., and F. C. Messaros— <i>Stoker Firing</i> , <i>A.S.M.E. Spring Meeting</i> .   | May 1949  | 48 |
| Benson, A. A.— <i>New 160,000-Kw White River Generating Station of Indianapolis Power &amp; Light Co.</i>                               | May 1949  | 26 |
| Betz, L. Drew, and John J. Maguire— <i>Treatment of Cooling Water</i> , <i>Midwest Power Conference</i> .                               | May 1949  | 38 |
| Birnie, C., Jr., and E. F. Obert— <i>Power Station Losses</i> , <i>Midwest Power Conference</i> .                                       | May 1949  | 41 |
| Bodach, C. M., and L. O. Gunderson— <i>Steam Formation by Motion Picture Studies</i> , <i>Midwest Power Conference</i> .                | May 1949  | 39 |
| Braski, Neil J.— <i>More Power for Greater Alkali Production</i> .  | Oct. 1948 | 36 |
| Buckland, B. O., and Alan Howard— <i>Test of a 4800-Hp Gas Turbine</i> , <i>A.S.M.E. Annual Meeting</i> .                               | Dec. 1948 | 54 |
| Burns, W. J.— <i>Port Jefferson Power Station of the Long Island Lighting Co.</i>   | Feb. 1949 | 34 |
| Carter, J. H.— <i>Smoke Abatement's Wider Horizons</i> .  | July 1948 | 43 |
| Chadwick, W. F., F. S. Clark and Dr. D. L. Fox— <i>Temperature Control of Marine Fouling</i> , <i>A.S.M.E. Spring Meeting</i> .         | May 1949  | 47 |
| Clark, F. S., W. L. Chadwick and Dr. D. L. Fox— <i>Temperature Control of Marine Fouling</i> , <i>A.S.M.E. Spring Meeting</i> .         | May 1949  | 47 |
| Clinch, W. N. C.— <i>Operating Experience With High Steam Pressure</i> .  | Nov. 1948 | 34 |
| Collins, Leo F., and W. L. Webb— <i>Fouling and Cleaning of Heat-Exchange Equipment</i> , <i>A.S.M.E. Annual Meeting</i> .              | Dec. 1948 | 51 |
| Corey, Richard C., H. A. Grabowski and B. J. Cross— <i>External Corrosion of Furnace-Wall Tubes</i> , <i>A.S.M.E. Annual Meeting</i> .  | Dec. 1948 | 53 |
| Cross, B. J., R. C. Corey and H. A. Grabowski— <i>External Corrosion of Furnace-Wall Tubes</i> , <i>A.S.M.E. Annual Meeting</i> .       | Dec. 1948 | 53 |
| Daniels, George C.— <i>The Prevention of Turbine-Blade Deposits</i> .   | July 1948 | 33 |
| Dawson, J. L.— <i>What's New in Boiler Feed Pumps?</i>  | July 1948 | 28 |
| Decker, J. M., H. A. Wagner and J. C. Marsh— <i>Corrosion-Erosion of Feed Pumps and Valves</i> , <i>A.S.M.E. Annual Meeting</i> .       | Dec. 1948 | 50 |
| de Luccia, E. Robert— <i>Power Supply and Requirements</i> , <i>Midwest Power Conference</i> .  | May 1949  | 35 |
| Douglass, D., and H. N. Hackett— <i>The Modern Mercury Unit</i> .   | June 1949 | 59 |
| Elliott, A. C.— <i>Feedwater Conditioning at Canadian Steel Plant</i> , <i>Midwest Power Conference</i> .                               | May 1949  | 37 |
| Elston, C. W.— <i>Post-War Turbine Design</i> , <i>Midwest Power Conference</i> .   | May 1949  | 41 |
| Estcourt, V. F., Joseph Pope and K. M. Irwin— <i>Utility-Industry Power Cooperation</i> , <i>A.S.M.E. Annual Meeting</i> .              | Dec. 1948 | 52 |
| Falck, Edward— <i>Power Supply and National Security</i> , <i>Midwest Power Conference</i> .  | May 1949  | 35 |
| Falkner, J. C., D. W. Napier and C. W. Kellstedt— <i>Quick Starts on Large Turbines and Boilers</i> .                                   | June 1949 | 64 |
| Field, James F.— <i>New Steam Cycle Proposed</i> .  | Aug. 1948 | 40 |
| Fox, Dr. D. L., W. L. Chadwick and F. S. Clark— <i>Temperature Control of Marine Fouling</i> , <i>A.S.M.E. Spring Meeting</i> .         | May 1949  | 47 |
| Frisch, Martin— <i>Steam Generating Equipment for Resuperheating Cycles</i> , <i>A.S.M.E. Annual Meeting</i> .                          | Dec. 1948 | 48 |
| Gilg, F. X., W. H. Rowand and A. E. Raynor— <i>High-Pressure Boilers With Reheaters</i> , <i>A.S.M.E. Annual Meeting</i> .              | Dec. 1948 | 47 |
| Gilg, F. X.— <i>Recent Developments in Steam Generation</i> , <i>Midwest Power Conference</i> .   | May 1949  | 40 |
| Gillespie, R. D.— <i>The New O. H. Hutchings Station</i> .  | Jan. 1949 | 28 |
| Grabowski, H. A., R. C. Corey and B. J. Cross— <i>External Corrosion of Furnace-Wall Tubes</i> , <i>A.S.M.E. Annual Meeting</i> .       | Dec. 1948 | 53 |
| Groom, C. H., and C. M. Loucks— <i>Chemical Cleaning of Heat-Exchange Equipment</i> , <i>A.S.M.E. Annual Meeting</i> .                  | Dec. 1948 | 51 |

|   |            |    |   |           |    |
|---|------------|----|---|-----------|----|
| Gunderson, L. O., and C. M. Bodach— <i>Steam Formation by Motion Picture Studies</i> , Midwest Power Conference.....                | May 1949   | 39 | Pope, Joseph, K. M. Irwin and V. F. Estcourt— <i>Utility-Industry Power Cooperation</i> , A.S.M.E. Annual Meeting.....              | Dec. 1948 | 52 |
| Hackett, H. N., and D. Douglass— <i>The Modern Mercury Unit</i> .....   | June 1949  | 59 | Powell, E. M.— <i>Evolution in Boiler Design</i> , Midwest Power Conference.....  | May 1949  | 39 |
| Hainer, F. W.— <i>Maintenance of Packaged Boilers</i> , Midwest Power Conference.....   | May 1949   | 41 | Raynor, A. E., W. H. Rowand and F. X. Gilg— <i>High-Pressure Boilers With Reheaters</i> , A.S.M.E. Annual Meeting.....              | Dec. 1948 | 47 |
| Hall, A. J., and R. S. Young— <i>Deposit Formations on Boiler Tubes</i> .....   | Jan. 1949  | 41 | Rees, R. L., and E. A. Howes— <i>Corrosion of Boiler Generating Tubes</i> .....   | Feb. 1949 | 49 |
| Hallman, R. L.— <i>Burning Anthracite in Power Plants</i> .....   | July 1948  | 41 | Reese, Homer R., and Robert L. Reynolds— <i>Reheating in Steam Turbines</i> , A.S.M.E. Annual Meeting.....                          | Dec. 1948 | 43 |
| Harlow, W. F.— <i>Causes of Flue Gas Deposits and Corrosion in Modern Boiler Plants</i> .....                                       | Mar. 1949  | 35 | Reynolds, Robert L., and Homer R. Reese— <i>Reheating in Steam Turbines</i> , A.S.M.E. Annual Meeting.....                          | Dec. 1948 | 43 |
| Harris, E. E., and A. O. White— <i>Developments in Resuperheating in Steam Power Plants</i> , A.S.M.E. Annual Meeting.....          | Dec. 1948  | 42 | Ritchie, Dr. E. G.— <i>Steam Peaks in Industrial Plants</i> .....   | Mar. 1949 | 41 |
| Hilberry, Dr. Norman— <i>Present Status of Atomic Power</i> .....   | June 1949  | 47 | Roberts, R. T.— <i>Waterside No. 1 Completes Its Topping Program, Part I—Steam Generation</i> .....                                 | Apr. 1949 | 38 |
| Holmes, J. A.— <i>Carryover Diagnosis</i> , Midwest Power Conference.....   | May 1949   | 36 | Robertson, C. A.— <i>Control and Starting of Reheat Turbines</i> .....  | Jan. 1949 | 37 |
| Hosbach, E. C.— <i>Cooling Tower Water Treatment Problems</i> , Midwest Power Conference.....                                       | May 1949   | 38 | Rowand, W. H., A. E. Raynor and F. X. Gilg— <i>High-Pressure Boilers With Reheaters</i> , A.S.M.E. Annual Meeting.....              | Dec. 1948 | 47 |
| Howard, Alan, and B. O. Buckland— <i>Test of a 4800-Hp Gas Turbine</i> , ASME Annual Meeting.....                                   | Dec. 1948  | 54 | Schoenfeld, D. M., and E. P. Worthen— <i>Economizers and Air Heaters in Marine Power Plants</i> .....                               | Apr. 1949 | 58 |
| Howard, Frank A.— <i>Synthetic Fuels</i> .....  | Nov. 1948  | 47 | Schroeder, W. C.— <i>Synthetic Liquid Fuels</i> , A.S.M.E. Annual Meeting.....  | Dec. 1948 | 53 |
| Howes, E. A., and R. L. Rees— <i>Corrosion of Boiler Generating Tubes</i> .....   | Feb. 1949  | 49 | Steins, C. K.— <i>Progress With the Coal-Fired Turbine Locomotive</i> , Midwest Power Conference.....                               | May 1949  | 42 |
| Hull, Glenn— <i>Refinery Boiler Feedwater Treatment</i> , Midwest Power Conference.....   | May 1949   | 37 | Straub, F. G.— <i>Silica Carryover</i> , Midwest Power Conference.....  | May 1949  | 38 |
| Humphreys, C. G. R.— <i>Early Developments in Pulverized Coal Firing, Part I</i> .....  | Sept. 1948 | 34 | Tobey, J. E.— <i>Appraisal of the Coal Industry</i> .....   | Aug. 1948 | 35 |
| ..... <i>Part II</i> .....  | Oct. 1948  | 44 | Van Brunt, John— <i>Explosion Doors for Boiler Furnaces</i> .....   | Mar. 1949 | 44 |
| ..... <i>Part III, The Transportation Field</i> .....   | Nov. 1948  | 40 | Vogel, W. J.— <i>Steam Generator Development to Obtain High Availability</i> .....  | Oct. 1948 | 57 |
| ..... <i>Perkins on High-Pressure Steam</i> .....   | Apr. 1949  | 48 | Wagner, H. A., J. M. Decker and J. C. Marsh— <i>Corrosion-Erosion of Feed Pumps and Valves</i> , A.S.M.E. Annual Meeting.....       | Dec. 1948 | 50 |
| Irwin, K. M., Joseph Pope and V. F. Estcourt— <i>Utility-Industry Power Cooperation</i> , A.S.M.E. Annual Meeting.....              | Dec. 1948  | 52 | Walsh, E. F.— <i>Slag Deposits on Heating Surfaces of High-Pressure Boilers</i> , A.S.M.E. Spring Meeting.....                      | May 1949  | 47 |
| Juhász, Stephen— <i>Sulfur, Dew Point and Boiler Availability</i> .....   | June 1949  | 55 | Walton, E. H., R. L. Anthony, J. O. Mullen and C. A. Molsberry— <i>The English Station Extension</i> , A.S.M.E. Spring Meeting..... | May 1949  | 45 |
| Kellstedt, C. W., J. C. Falkner and D. W. Napier— <i>Quick Starts on Large Turbines and Boilers</i> .....                           | June 1949  | 64 | Webb, W. L., and Leo F. Collins— <i>Fouling and Cleaning of Heat-Exchange Equipment</i> , A.S.M.E. Annual Meeting.....              | Dec. 1948 | 51 |
| Kemmer, Frank— <i>Economic Factors Governing the Selection of Feedwater Treatment</i> .....   | Aug. 1948  | 30 | Webb, W. L.— <i>Steam Contamination Experience</i> , Midwest Power Conference.....  | May 1949  | 37 |
| Knecht, H.— <i>Waterside No. 1 Completes Its Topping Program, Part II—Turbines and Auxiliaries</i> .....                            | June 1949  | 40 | Weisberg, H.— <i>Effect of Temperature on Metals</i> , A.S.M.E. Annual Meeting.....   | Dec. 1948 | 50 |
| Le Clair, T. G.— <i>Power Supply to Chicago</i> , Midwest Power Conference.....   | May 1949   | 36 | White, A. E., and J. B. Abele— <i>Graphitization of High-Temperature Welded Piping</i> , A.S.M.E. Annual Meeting.....               | Dec. 1948 | 49 |
| Le Mieux, B. G.— <i>Steam and Power for Conduit and Sewer Pipe Manufacture</i> .....  | June 1949  | 51 | White, A. O., and E. E. Harris— <i>Developments in Resuperheating in Steam Power Plants</i> , A.S.M.E. Annual Meeting.....          | Dec. 1948 | 42 |
| Long, F. H., and W. A. Pollock— <i>Internal Treatment With Magnesium Chloride in Absence of Phosphate</i> .....                     | Aug. 1948  | 47 | White, H. E.— <i>Laboratory Tests of Marine Fouling</i> , A.S.M.E. Spring Meeting.....  | May 1949  | 46 |
| Loucks, C. M., and C. H. Groom— <i>Chemical Cleaning of Heat-Exchange Equipment</i> , A.S.M.E. Annual Meeting.....                  | Dec. 1948  | 51 | Wirth, L. F.— <i>Water Treatment for High-Pressure Plant</i> , Midwest Power Conference.....  | May 1949  | 37 |
| McChesney, I. G.— <i>Russell Station Incorporates Advances in Power Plant Design</i> .....  | Dec. 1948  | 34 | Worthen, E. P., and D. M. Schoenfeld— <i>Economizers and Air Heaters in Marine Power Plants</i> .....                               | Apr. 1949 | 58 |
| Maguire, John J., and L. Drew Betz— <i>Treatment of Cooling Water</i> , Midwest Power Conference.....                               | May 1949   | 38 | Yoder, J. D.— <i>Removal of Silica From Feedwater</i> , Midwest Power Conference.....   | May 1949  | 39 |
| Major, William S.— <i>Furnace Performance With Overfire Jets</i> , A.S.M.E. Spring Meeting.....                                     | May 1949   | 48 | Young, R. S., and A. J. Hall— <i>Deposit Formations on Boiler Tubes</i> .....   | Jan. 1949 | 41 |
| Mamer, Leland J.— <i>Small Plant Maintenance</i> , Midwest Power Conference.....  | May 1949   | 40 |   |           |    |
| Marsh, J. C., J. M. Decker and H. A. Wagner— <i>Corrosion-Erosion of Feed Pumps and Valves</i> , A.S.M.E. Annual Meeting.....       | Dec. 1948  | 50 |   |           |    |
| Meissner, H. G.— <i>Experience With Burning Bagasse on Spreader-Type Stokers</i> .....  | Sept. 1948 | 44 |   |           |    |
| Messaros, F. C., and J. S. Bennett— <i>Stoker Firing</i> , A.S.M.E. Spring Meeting.....   | May 1949   | 48 |   |           |    |
| Miller, C. E.— <i>Fly Ash From the Small Plant</i> , Midwest Power Conference.....  | May 1949   | 40 |   |           |    |
| Moe, Parker, A.— <i>Industrial Power Plant Design</i> , Midwest Power Conference.....   | May 1949   | 40 |   |           |    |
| Molsberry, C. A., R. L. Anthony, J. O. Mullen and E. H. Walton— <i>The English Station Extension</i> , A.S.M.E. Spring Meeting..... | May 1949   | 45 |   |           |    |
| Mullen, J. O., R. L. Anthony, C. A. Molsberry and E. H. Walton— <i>The English Station Extension</i> , A.S.M.E. Spring Meeting..... | May 1949   | 45 |   |           |    |
| Münzinger, Dr. Friedrich— <i>A Comparison of Gas and Steam Turbines</i> .....   | Sept. 1948 | 39 |   |           |    |
| Napier, D. W., J. C. Falkner and C. W. Kellstedt— <i>Quick Starts on Large Turbines and Boilers</i> .....                           | June 1949  | 64 |   |           |    |
| Obert, E. F., and C. Birnie, Jr.— <i>Power Station Losses</i> , Midwest Power Conference.....                                       | May 1949   | 41 |   |           |    |
| Oscarson, G. L.— <i>Selection of Motors for Steam Station Auxiliaries</i> .....   | Feb. 1949  | 43 |   |           |    |
| Parker, E. E.— <i>Steam Turbines for the Resuperheat Cycle</i> , A.S.M.E. Annual Meeting.....                                       | Dec. 1948  | 41 |   |           |    |
| Parker, Leo T.— <i>Some Recent Court Decisions Affecting Owners and Operators of Steam Plants</i> .....                             | Sept. 1948 | 47 |   |           |    |
| Patten, I. A.— <i>Marine Fouling Problems</i> , A.S.M.E. Spring Meeting.....  | May 1949   | 46 |   |           |    |
| Patterson, W. S.— <i>Modern Reheat Boilers</i> , A.S.M.E. Annual Meeting.....   | Dec. 1948  | 46 |   |           |    |
| Place, P. B.— <i>Carryover Identification</i> , Midwest Power Conference.....   | May 1949   | 36 |   |           |    |
| ..... <i>Test Methods for Checking Water Level in Boiler Drums</i> .....  | July 1948  | 37 |   |           |    |
| Pollock, W. A., and F. H. Long— <i>Internal Treatment With Magnesium Chloride in Absence of Phosphate</i> .....                     | Aug. 1948  | 47 |   |           |    |

## CLASSIFIED—

## Air Heaters

|  |           |    |
|--|-----------|----|
| Economizers and Air Heaters in Marine Power Plants. By D. M. Schoenfeld and E. P. Worthen..... | Apr. 1949 | 58 |
|--|-----------|----|

## Auxiliaries

|   |           |    |
|---|-----------|----|
| Selection of Motors for Steam Station Auxiliaries. By G. L. Oscarson..... | Feb. 1949 | 43 |
|---|-----------|----|

## Bagasse

|  |            |    |
|--|------------|----|
| Experience With Burning Bagasse on Spreader-Type Stokers. By H. G. Meissner..... | Sept. 1948 | 44 |
|--|------------|----|

## Boilers

|  |           |    |
|--|-----------|----|
| Deposit Formations on Boiler Tubes. By R. S. Young and A. J. Hall.....     | Jan. 1949 | 41 |
| Evolution in Boiler Design, Midwest Power Conference. By E. M. Powell..... | May 1949  | 39 |
| Explosion Doors for Boiler Furnaces. By John Van Brunt.....                | Mar. 1949 | 44 |



|  |           |    |
|--|-----------|----|
| High-Pressure Boilers With Reheaters, <i>A.S.M.E. Annual Meeting</i> . By W. H. Rowand, A. E. Raynor and F. X. Gilg..... | Dec. 1948 | 47 |
| Maintenance of Packaged Boilers, <i>Midwest Power Conference</i> . By F. W. Hainer.....                                  | May 1949  | 41 |
| Modern Reheat Boilers, <i>A.S.M.E. Annual Meeting</i> . By W. S. Patterson.....  | Dec. 1948 | 46 |
| Quick Starts on Large Turbines and Boilers. By J. C. Falkner, D. W. Napier and C. W. Kellstedt.....                      | June 1949 | 64 |
| Slag Deposits on Heating Surfaces of High-Pressure Boilers, <i>A.S.M.E. Spring Meeting</i> . By E. F. Walsh.....         | May 1949  | 47 |
| Steam Generator Development to Obtain High Availability. By W. J. Vogel.....   | Oct. 1948 | 57 |
| Steam Generating Equipment for Resuperheating Cycles, <i>A.S.M.E. Annual Meeting</i> . By Martin Frisch.....             | Dec. 1948 | 48 |
| Steam Generator Developments, <i>Midwest Power Conference</i> . By Frank X. Gilg.....                                    | May 1949  | 40 |
| Test Methods for Checking Water Level in Boiler Drums. By P. B. Place.....   | July 1948 | 37 |

### Carryover

|  |          |    |
|--|----------|----|
| Carryover Diagnosis, <i>Midwest Power Conference</i> . By J. A. Holmes.....          | May 1949 | 36 |
| Carryover Identification, <i>Midwest Power Conference</i> . By P. B. Place.....      | May 1949 | 36 |
| Steam Contamination Experience, <i>Midwest Power Conference</i> . By W. L. Webb..... | May 1949 | 37 |

### Combustion Control

|  |           |    |
|--|-----------|----|
| Automatic Control of Steam Plants, <i>A.S.M.E. Annual Meeting</i> . By Herman Weisburg, Paul Gravelle, V. F. Estcourt, R. F. Hanson, O. F. Campbell, C. H. Morrow, C. S. Robinson, R. C. Mallory, D. G. Reid, T. T. Frankenberg and C. S. Pease..... | Dec. 1948 | 52 |
|--|-----------|----|

### Condensers

|   |          |    |
|---|----------|----|
| Laboratory Tests of Marine Fouling, <i>A.S.M.E. Spring Meeting</i> . By H. E. White.....                                      | May 1949 | 46 |
| Marine Fouling Problems, <i>A.S.M.E. Spring Meeting</i> . By I. A. Patten.....  | May 1949 | 46 |
| Temperature Control of Marine Fouling, <i>A.S.M.E. Spring Meeting</i> . By W. L. Chadwick, F. S. Clark and Dr. D. L. Fox..... | May 1949 | 47 |

### Corrosion

|   |           |    |
|---|-----------|----|
| Causes of Flue Gas Deposits and Corrosion in Modern Boiler Plants. By W. F. Harlow.....   | Mar. 1949 | 35 |
| Corrosion-Erosion of Feed Pumps and Valves, <i>A.S.M.E. Annual Meeting</i> . By J. M. Decker, H. A. Wagner and J. C. Marsh..... | Dec. 1948 | 50 |
| Corrosion of Boiler Generating Tubes. By R. L. Rees and E. A. Howes.....  | Feb. 1949 | 49 |
| External Corrosion of Furnace-Wall Tubes, <i>A.S.M.E. Annual Meeting</i> . By R. C. Corey, H. A. Grabowski and B. J. Cross..... | Dec. 1948 | 53 |
| Sulfur, Dew Point and Boiler Availability. By Stephen Juhász.....   | June 1949 | 55 |

### Design

|  |          |    |
|--|----------|----|
| Industrial Power Plant Design, <i>Midwest Power Conference</i> . By Parker A. Moe..... | May 1949 | 40 |
|--|----------|----|

### Fly Ash

|  |          |    |
|--|----------|----|
| Fly Ash From the Small Plant, <i>Midwest Power Conference</i> . By Carl E. Miller..... | May 1949 | 45 |
|--|----------|----|

### Fuels

|  |            |    |
|--|------------|----|
| Appraisal of the Coal Industry. By J. E. Tobey.....                              | Aug. 1948  | 30 |
| Burning Anthracite in Power Plants. By R. L. Hallman.....                        | July 1948  | 41 |
| Dedication of Coal-to-Oil Plants.....  | Apr. 1949  | 61 |
| Early Developments in Pulverized Coal Firing. By C. G. R. Humphreys—Part I.....  | Sept. 1948 | 34 |
| Part II.....   | Oct. 1948  | 44 |
| Part III, The Transportation Field.....  | Nov. 1948  | 40 |
| Experience With Burning Bagasse on Spreader-Type Stokers. By H. G. Meissner..... | Sept. 1948 | 44 |
| General Fuel Situation, The. By Carl E. Miller.....                              | Oct. 1948  | 51 |
| Joint Fuels Meeting Features Coal Reserves and Synthetic Oils.....               | Nov. 1948  | 59 |
| Synthetic Fuel Oil Costs.....  | May 1949   | 50 |
| Synthetic Fuels. By Frank A. Howard.....   | Nov. 1948  | 47 |
| Synthetic Liquid Fuels, <i>A.S.M.E. Annual Meeting</i> . By W. C. Schroeder..... | Dec. 1948  | 53 |

### Furnaces

|   |           |    |
|---|-----------|----|
| External Corrosion of Furnace-Wall Tubes, <i>A.S.M.E. Annual Meeting</i> . By R. C. Corey, H. A. Grabowski and B. J. Cross..... | Dec. 1948 | 53 |
| Furnace Performance With Overfire Jets, <i>A.S.M.E. Spring Meeting</i> . By William S. Major.....                               | May 1949  | 48 |
| Slagging-Bottom Furnaces Abroad. By K. Heinrich.....  | May 1949  | 43 |

### Gas Turbines

|   |            |    |
|---|------------|----|
| A Comparison of Gas and Steam Turbines. By Dr. F. Münzinger.....  | Sept. 1948 | 39 |
| Progress With the Coal-Fired Turbine Locomotive, <i>Midwest Power Conference</i> . By C. K. Steins..... | May 1949   | 42 |
| Test of a 4800-Hp Gas Turbine, <i>A.S.M.E. Annual Meeting</i> . By Alan Howard and B. O. Buckland.....  | Dec. 1948  | 54 |

### Installations

|  |           |    |
|--|-----------|----|
| Diamond Alkali Company, Houston, Tex. Power and Steam Facilities of New Texas Alkali Plant.....  | Dec. 1948 | 57 |
| Diamond Alkali Company, Painesville, Ohio. More Power for Greater Alkali Production. By Neil J. Braski.....  | Oct. 1948 | 36 |
| English Station, United Illuminating Company, New Haven, Conn. The English Station Extension, <i>A.S.M.E. Spring Meeting</i> . By R. L. Anthony, J. O. Mullen, C. A. Molsberry and E. H. Walton.....   | May 1949  | 45 |
| O. H. Hutchings Station, The Dayton Power and Light Co. The New O. H. Hutchings Station. By R. D. Gillespie.....   | Jan. 1949 | 28 |
| Orangeburg Manufacturing Company, Orangeburg, N. Y. Steam and Power for Conduit and Sewer Pipe Manufacture. By B. G. Le Mieux.....   | June 1949 | 51 |
| Port Jefferson Station, Long Island Lighting Co. Port Jefferson Power Station of the Long Island Lighting Co. By W. J. Burns.....  | Feb. 1949 | 34 |
| Russell Station, Rochester Gas & Electric Corp. Russell Station Incorporates Advances in Power Plant Design. By I. G. McChesney.....   | Dec. 1948 | 34 |
| S. D. Warren Company, Cumberland Mills, Me. Coordination of Power and Steam at S. D. Warren Co. Waterside No. 1 Station, Consolidated Edison Co. Waterside No. 1 Completes Its Topping Program, Part I—Steam Generation. By R. T. Roberts..... | Apr. 1949 | 38 |
| Part II—Turbines and Auxiliaries. By H. Knecht.....  | June 1949 | 40 |
| White River Generating Station, Indianapolis Power & Light Co. New 160,000-Kw White River Generating Station of Indianapolis Power & Light Co. By A. A. Benson.....  | May 1949  | 26 |

### Mercury-Steam Cycle

|   |           |    |
|---|-----------|----|
| The Modern Mercury Unit Power Plant Design. By D. Douglass and H. N. Hackett..... | June 1949 | 59 |
|---|-----------|----|

### Nuclear Energy

|   |           |    |
|---|-----------|----|
| Present Status of Atomic Power. By Dr. Norman Hilberry..... | June 1949 | 47 |
|---|-----------|----|

### Piping

|  |           |    |
|--|-----------|----|
| Effect of Temperature on Metals, <i>A.S.M.E. Annual Meeting</i> . By H. Weisberg.....                                  | Dec. 1948 | 50 |
| Graphitization of High-Temperature Welded Piping, <i>A.S.M.E. Annual Meeting</i> . By J. B. Abele and A. E. White..... | Dec. 1948 | 49 |
| Model Test Analysis of Steam Piping Systems. By Lale C. Andrews.....   | Apr. 1949 | 53 |

### Performance

|   |           |    |
|---|-----------|----|
| Coordination of Power and Steam at S. D. Warren Co. Port Washington 1948 Performance..... | Mar. 1949 | 28 |
|   | Jan. 1949 | 45 |

### Power Statistics

|  |           |    |
|--|-----------|----|
| Power in New England.....  | Jan. 1949 | 49 |
| Power Supply and National Security, <i>Midwest Power Conference</i> . By Edward Falek..... | May 1949  | 35 |
| Power Supply and Requirements, <i>Midwest Power Conference</i> . By E. R. de Luccia.....   | May 1949  | 35 |
| Power Supply to Chicago, <i>Midwest Power Conference</i> . By T. G. Le Clair.....          | May 1949  | 36 |
| Survey Shows Power Situation.....  | Jan. 1949 | 35 |

### Pulverized Coal

|   |            |    |
|---|------------|----|
| Early Developments in Pulverized Coal Firing. By C. G. R. Humphreys—Part I..... | Sept. 1948 | 34 |
|---|------------|----|

|   |            |    |  |            |    |
|---|------------|----|--|------------|----|
| Part II.....  | Oct. 1948  | 44 | Prevention of Turbine-Blade Deposits. By George C. Daniels.....  | July 1948  | 33 |
| Part III, The Transportation Field.....   | Nov. 1948  | 40 | Refinery Boiler Feedwater Treatment, <i>Midwest Power Conference</i> . By Glenn Hull.....                                | May 1949   | 37 |
| Explosion Doors for Boiler Furnaces. By John Van Brunt.....   | Mar. 1949  | 44 | Removal of Silica from Feedwater, <i>Midwest Power Conference</i> . By J. D. Yoder.....                                  | May 1949   | 39 |
| Progress With the Coal-Fired Turbine Locomotive, <i>Midwest Power Conference</i> . By C. K. Steins.....                         | May 1949   | 42 | Silica Carryover, <i>Midwest Power Conference</i> . By F. G. Straub.....   | May 1949   | 38 |
| <b>Pumps</b>  |            |    | Treatment of Cooling Water, <i>Midwest Power Conference</i> . By L. Drew Betz and John J. Maguire.....                   | May 1949   | 38 |
| Corrosion-Erosion of Feed Pumps and Valves, <i>A.S.M.E. Annual Meeting</i> . By J. M. Decker, H. A. Wagner and J. C. Marsh..... | Dec. 1948  | 50 | Water Conference Features Precision Control and Debates Deaeration.....  | Nov. 1948  | 51 |
| What's New in Boiler Feed Pumps? By L. J. Dawson.....   | July 1948  | 28 | Water Treatment for High-Pressure Plant, <i>Midwest Power Conference</i> . By Louis Wirth, Jr.....                       | May 1949   | 37 |
| <b>Reheat</b>   |            |    | <b>Miscellaneous</b>   |            |    |
| Control and Starting of Reheat Turbines. By C. A. Robertson.....  | Jan. 1949  | 37 | Additions to Utility Capacity.....   | Oct. 1948  | 43 |
| Developments in Resuperheating in Steam Power Plants, <i>A.S.M.E. Annual Meeting</i> . By E. E. Harris and A. O. White.....     | Dec. 1948  | 42 | A.I.E.E. Winter Meeting.....   | Feb. 1949  | 52 |
| High-Pressure Boilers With Reheaters, <i>A.S.M.E. Annual Meeting</i> . By W. H. Rowand, A. E. Raynor and F. X. Gilg.....        | Dec. 1948  | 47 | A.S.M.E. Annual Meeting Program.....   | Nov. 1948  | 54 |
| Modern Reheat Boilers, <i>A.S.M.E. Annual Meeting</i> . By W. S. Patterson.....   | Dec. 1948  | 46 | Chemical Cleaning of Heat-Exchange Equipment, <i>A.S.M.E. Annual Meeting</i> . By C. M. Loucks and C. H. Groom.....      | Dec. 1948  | 51 |
| Reheating in Steam Turbines, <i>A.S.M.E. Annual Meeting</i> . By Robert L. Reynolds and Homer R. Reese.....                     | Dec. 1948  | 43 | Fouling and Cleaning of Heat-Exchange Equipment, <i>A.S.M.E. Annual Meeting</i> . By Leo F. Collins and W. L. Webb.....  | Dec. 1948  | 51 |
| Steam Generating Equipment for Resuperheating Cycles, <i>A.S.M.E. Annual Meeting</i> . By Martin Frisch.....                    | Dec. 1948  | 48 | Kreisinger Laboratory Dedicated.....   | May 1949   | 49 |
| Steam Turbines for the Resuperheat Cycle, <i>A.S.M.E. Annual Meeting</i> . By E. E. Parker.....                                 | Dec. 1948  | 41 | Midwest Power Conference Program.....  | Mar. 1949  | 47 |
| <b>Smoke Abatement</b>  |            |    | Operating Experience With High Steam Pressures. By W. N. C. Clinch.....  | Nov. 1948  | 34 |
| Smoke Abatement's Wider Horizons. By J. H. Carter.....  | July 1948  | 43 | Perkins on High-Pressure Steam. By C. G. R. Humphreys.....   | Apr. 1949  | 48 |
| <b>Spreader Stokers</b>   |            |    | Power in New England.....  | Jan. 1949  | 49 |
| Experience With Burning Bagasse on Spreader-Type Stokers. By H. G. Meissner.....  | Sept. 1948 | 44 | Power Station Layouts.....   | Sept. 1948 | 51 |
| <b>Steam Cycles</b>   |            |    | Power Station Losses, <i>Midwest Power Conference</i> . By C. Birnie, Jr., and E. F. Obert.....                          | May 1949   | 41 |
| Heat Engineering Discussed. By K. Baumann.....  | Jan. 1949  | 47 | Power Supply and Requirements, <i>Midwest Power Conference</i> . By E. R. de Luccia.....                                 | May 1949   | 35 |
| New Steam Cycle Proposed. By J. F. Field.....   | Aug. 1948  | 40 | Power Supply to Chicago, <i>Midwest Power Conference</i> . By T. G. Le Clair.....  | May 1949   | 36 |
| <b>Steam Turbines</b>   |            |    | Small Plant Maintenance, <i>Midwest Power Conference</i> . By Leland J. Mamer.....                                       | May 1949   | 40 |
| Comparison of Gas and Steam Turbines. By Dr. F. Münzinger.....  | Sept. 1948 | 39 | Some Recent Court Decisions Affecting Owners and Operators of Steam Plants. By Leo T. Parker.....                        | Sept. 1948 | 47 |
| Control and Starting of Reheat Turbines. By C. A. Robertson.....  | Jan. 1949  | 37 | Steam Contamination Experience, <i>Midwest Power Conference</i> . By W. L. Webb.....                                     | May 1949   | 37 |
| Post-War Turbine Design, <i>Midwest Power Conference</i> . By C. W. Elston.....   | May 1949   | 41 | Steam Formation by Motion Picture Studies, <i>Midwest Power Conference</i> . By L. O. Gunderson and C. M. Bodach.....    | May 1949   | 39 |
| Prevention of Turbine-Blade Deposits. By George C. Daniels.....   | July 1948  | 33 | Steam Peaks in Industrial Plants. By Dr. E. G. Ritchie.....  | Mar. 1949  | 41 |
| Quick Starts on Large Turbines and Boilers. By J. C. Falkner, D. W. Napier and C. W. Kellstedt.....                             | June 1949  | 64 | Test Methods for Checking Water Level in Boiler Drums. By P. B. Place.....   | July 1948  | 37 |
| Reheating in Steam Turbines, <i>A.S.M.E. Annual Meeting</i> . By Robert L. Reynolds and Homer R. Reese.....                     | Dec. 1948  | 43 | <b>REVIEW OF NEW BOOKS—</b>  |            |    |
| Steam Turbines for the Resuperheat Cycle, <i>A.S.M.E. Annual Meeting</i> . By E. E. Parker.....                                 | Dec. 1948  | 41 | Aluminum Alloy Castings. By Floyd A. Lewis.....  | June 1949  | 67 |
| Waterside No. 1 Completes Its Topping Program, Part II—Turbines and Auxiliaries. By H. Knecht.....                              | June 1949  | 40 | Amine Volatility and Alkalinity in Relation to Corrosion Control. By A. A. Berk and J. Nigon.....                        | Mar. 1949  | 49 |
| <b>Stokers</b>  |            |    | Basic Refrigeration and Air Conditioning. By Robert Henderson Emerick.....   | Mar. 1949  | 49 |
| Stoker Firing, <i>A.S.M.E. Spring Meeting</i> . By J. S. Bennett and F. C. Messaros.....  | May 1949   | 48 | Bituminous Coal Facts and Figures—1948 Edition. Published by Bituminous Coal Institute.....                              | Mar. 1949  | 49 |
| <b>Synthetic Fuels</b>  |            |    | Combustion Engines. By Arthur P. Fraas.....  | Mar. 1949  | 49 |
| Dedication of Coal-to-Oil Plants.....   | Apr. 1949  | 61 | Diesel Engine. By J. W. Anderson.....  | June 1949  | 67 |
| Synthetic Fuel Oil Costs.....   | May 1949   | 50 | Elementary Steam Power Engineering—Third Edition. By Edgar MacNaughton.....  | July 1948  | 48 |
| <b>Water Conditioning</b>   |            |    | From the Ground Up. By Paul M. Tyler.....  | July 1948  | 48 |
| Carryover Identification, <i>Midwest Power Conference</i> . By P. B. Place.....   | May 1949   | 36 | Gas Tables. By Joseph H. Keenan and Joseph Kaye.....   | Dec. 1948  | 58 |
| Cooling Tower Water Treatment Problems, <i>Midwest Power Conference</i> . By E. C. Hosbach.....                                 | May 1949   | 38 | How To Keep Invention Records. By Harry A. Toulmin, Jr.....  | May 1949   | 56 |
| Deposit Formations on Boiler Tubes. By R. S. Young and A. J. Hall.....  | Jan. 1949  | 41 | International Industry Yearbook, 1948. Edited by Lloyd J. Hughlett.....  | July 1948  | 48 |
| Economic Factors Governing the Selection of Feedwater Treatment. By Frank N. Kemmer.....  | Aug. 1948  | 30 | Mathematics at Work. By Holbrook L. Horton.....  | Mar. 1949  | 49 |
| Feedwater Conditioning at Canadian Steel Plant, <i>Midwest Power Conference</i> . By A. C. Elliott.....                         | May 1949   | 37 | Molybdenum: Steels, Irons and Alloys. By R. S. Archer, J. Z. Briggs and C. M. Loeb, Jr.....                              | Sept. 1948 | 57 |
| Internal Treatment With Magnesium Chloride in Absence of Phosphate. By F. H. Long and W. A. Pollock.....                        | Aug. 1948  | 47 | Nationally Recognized Standards in State Laws and Local Ordinances. Published by The American Standards Association..... | May 1949   | 56 |
|   |            |    | Patent Law. By Chester H. Biesterfeld.....   | May 1949   | 56 |
|   |            |    | Patent Law for the Executive. By Harry A. Toulmin, Jr.....   | June 1949  | 67 |
|   |            |    | Reference Biography. Published by Gilbert Associates, Inc.....   | May 1949   | 56 |
|   |            |    | Refresher Notes. By John D. Constance.....   | Dec. 1948  | 58 |
|   |            |    | Rocket Propulsion Elements. By George P. Sutton.....   | June 1949  | 68 |
|   |            |    | Smoke. By Arnold Marsh.....  | Dec. 1948  | 58 |
|   |            |    | Standard Welding Terms and Master Chart. Issued by American Welding Society.....   | June 1949  | 67 |
|   |            |    | Standards on Coal and Coke. Published by The American Society for Testing Materials.....                                 | Sept. 1948 | 57 |
|   |            |    | Steam Boiler Yearbook and Manual, The—Fourth Edition. Edited by Sydney D. Scorer.....                                    | May 1949   | 56 |
|   |            |    | Tentative Standard on Pipe Friction. Published by The Hydraulic Institute.....   | Mar. 1949  | 50 |
|   |            |    | Thermodynamic Charts for Combustion Processes. By H. C. Hottel, G. C. Williams and C. N. Satterfield.....                | June 1949  | 67 |
|   |            |    | Thermodynamics—First Edition. By Edward F. Obert.....  | Sept. 1948 | 57 |

AGE

33

37

39

38

38

51

37

43

52

54

51

51

49

47

34

48

49

51

41

35

36

40

47

37

39

41

37

37

49

49

49

49

57

48

48

48

46

48

49

47

46

46

47

46

48

48

48

47

47

46

40

47

47

47

47

47

47